

IN THE CLAIMS

Please amend the claims as follows:

1. (previously presented) An apparatus for recording a main multiplex stream file, comprising a main information signal of a video information signal and a first auxiliary information signal, and auxiliary elementary stream files, comprising further auxiliary information signals, in a track on a record carrier, so as to enable simultaneous presentation of the main information signal and at least one of the further auxiliary information signals, said track comprising a series of physical locations, said apparatus comprising:

first receiving means for receiving said main multiplex stream file;

second receiving means for receiving said auxiliary elementary stream files, wherein said auxiliary elementary stream includes (i) a first type of additional elementary streams, wherein a first type additional elementary stream file has a buffer leak bit rate and (ii) a second type of additional elementary streams, wherein a second type additional elementary stream file has a buffer leak bit rate that is less than the buffer leak bit rate of the first type additional elementary stream file;

first processing means for subdividing the main multiplex stream file into a sequence of main blocks having a main block size, wherein the main multiplex stream file has a buffer leak bit rate that is greater than the buffer leak bit rate of the first type additional elementary stream file, each main block comprising a part of the main information signal having a specific presentation time;

second processing means for subdividing each auxiliary elementary stream file into a sequence of auxiliary blocks per type, the auxiliary blocks each having a same auxiliary block size,

the auxiliary block size being greater than the main block size, each auxiliary block comprising a part of a further auxiliary information signal having a specific presentation time; and

writing means for interleaved writing in said track of the record carrier, (i) in an initial physical location, at least one block of the second type of auxiliary elementary stream file comprising a part of at least one second type further auxiliary information signal having a specific presentation time, (ii) in a first physical location adjacent the initial physical location, at least one [[a]] block of the first type of [[an]] auxiliary elementary stream file comprising a part of [[a]] at least one first type further auxiliary information signal having [[a]] said specific presentation time, (iii) in a second physical location, a subsequent block of the corresponding first type of auxiliary elementary stream file, and (iv) in at least one location between the first and second physical locations, at least one block of the main multiplex stream file comprising a part of the main information signal having a presentation time corresponding to the presentation time of the at least one block of the first type further auxiliary information signal to be written in the first physical location, wherein said writing means is further configured:

(v) (a) for repetitively writing subsequent parts of the main multiplex stream and parts of the corresponding first type of auxiliary elementary stream file contiguously in said track, and

(v) (b) for writing a subsequent part of the second type of auxiliary elementary stream file at another physical location such that the part of the main multiplex stream file stored in a location preceding the location of the subsequent part of the second type of auxiliary elementary stream file has a presentation time that lies in a presentation time interval of a preceding part of the second type of auxiliary elementary stream file stored in said track, and the part of the main multiplex stream file, stored

in a location subsequent said another physical location has a presentation time that lies in the presentation time interval of the subsequent part of the second type of auxiliary elementary stream file stored in a current location of said track.

2. (previously presented) The apparatus as claimed in claim 1, characterized in that a first number of auxiliary elementary stream files comprises a similar type of signals,

wherein the second processing means subdivides the first number of further auxiliary signals into sequences of auxiliary blocks comprising parts of the respective further auxiliary information signals having similar specific presentation times,

and wherein the writing means writes in contiguous locations, the blocks of the first number of further auxiliary signals comprising the parts of the further auxiliary signals having the similar specific presentation time.

3. (canceled).

4. (previously presented) The apparatus as claimed in claim 1 or 2, characterized in that at least one of the further auxiliary information signals is an audio signal.

5. (previously presented) The apparatus as claimed in claim 1 or 2, characterized in that at least one of the further auxiliary information signals is a subtitle signal.

6. (previously presented) The apparatus as claimed in claim 1 or 2, characterized in that at least one of the further auxiliary information signals is a PIP signal.

7. (previously presented) Apparatus as claimed in claim 1 or 2, characterized in that at least one of the further auxiliary signals is a graphics signal.

8. (previously presented) A method of recording a main multiplex stream file, comprising a main information signal of a video information signal and a first auxiliary information signal, and auxiliary elementary stream files, comprising further auxiliary information signals, in a track on a record carrier, so as to enable simultaneous presentation of the main information signal and at least one of the further auxiliary information signals, said track comprising a series of physical locations, said method comprising the steps of:

receiving said main multiplex stream file;

receiving said auxiliary elementary stream files, wherein said auxiliary elementary stream includes (i) a first type of additional elementary streams, wherein a first type additional elementary stream file has a buffer leak bit rate and (ii) a second type of additional elementary streams, wherein a second type additional elementary stream file has a buffer leak bit rate that is less than the buffer leak bit rate of the first type additional elementary stream file;

subdividing the main multiplex stream file into a sequence of main blocks having a main block size, wherein the main multiplex stream file has a buffer leak bit rate that is greater than the buffer leak bit rate of the first type additional elementary stream file, each main block comprising a part of the main information signal having a specific presentation time;

subdividing each auxiliary elementary stream file into a sequence of auxiliary blocks per type, the auxiliary blocks each having a same auxiliary block size, the auxiliary block size being greater than the main block size, each auxiliary block comprising a

part of a further auxiliary information signal having a specific presentation time; and

writing interleaved in said track of the record carrier, (i) in an initial physical location, at least one block of the second type of auxiliary elementary stream file comprising a part of at least one second type further auxiliary information signal having a specific presentation time, (ii) in a first physical location adjacent the initial physical location, at least one [[a]] block of the first type of [[an]] auxiliary elementary stream file comprising a part of [[a]] at least one first type further auxiliary information signal having [[a]] said specific presentation time, (iii) in a second physical location, a subsequent block of the corresponding first type of auxiliary elementary stream file, and (iv) in at least one location between the first and second physical locations, a block of the main multiplex stream file comprising a part of the main information signal having a presentation tune corresponding to the presentation time of the at least one block of the first type further auxiliary information signal to be written in the first physical location, wherein writing further includes:

(v) (a) repetitively writing subsequent parts of the main multiplex stream and parts of the corresponding first type of auxiliary elementary stream file contiguously in said track, and

(v) (b) writing a subsequent part of the second type of auxiliary elementary stream file at another physical location such that the part of the main multiplex stream file stored in a location preceding the location of the subsequent part of the second type of auxiliary elementary stream file has a presentation time that lies in a presentation time interval of a preceding part of the second type of auxiliary elementary stream file stored in said track, and the part of the main multiplex stream file, stored in a location subsequent said another physical location has a presentation time that lies in the presentation time interval of

the subsequent part of the second type of auxiliary elementary stream file stored in a current location of said track.

9. (previously presented) The method as claimed in claim 8, characterized in that a first number of auxiliary elementary stream files comprises a similar type of signals, wherein the method further comprises the steps of:

subdividing the first number of further auxiliary signals into sequences of auxiliary blocks comprising parts of the respective further auxiliary information signals having similar specific presentation times; and

writing, in contiguous locations, the blocks of the first number of further auxiliary signals comprising the parts of the further auxiliary signals having the similar specific presentation time.

10. (currently amended) A non-transitory, machine readable record carrier ~~in the form of a record medium of~~ containing information for controlling the operation of a processor ~~in a playback device~~ during playback in a playback device, the record carrier carrying a main multiplex stream file, comprising a main information signal of a video information signal and a first auxiliary information signal, and auxiliary elementary stream files, comprising further auxiliary information signals, in a track on the record carrier, so as to enable simultaneous presentation of the main information signal and at least one of the further auxiliary information signals, said track comprising a series of interleaved physical locations, characterized in that:

the main multiplex stream file is subdivided into a sequence of main blocks having a main block size, each block comprising a part of the main information signal having a specific presentation time;

each of the auxiliary elementary stream files is subdivided into a sequence of auxiliary blocks per type, the auxiliary blocks each having a same auxiliary block size, the auxiliary block size being greater than the main block size, each block comprising a part of a further auxiliary information signal having a specific presentation time, wherein said auxiliary elementary stream includes (i) a first type of additional elementary streams, wherein a first type additional elementary stream file has a buffer leak bit rate and (ii) a second type of additional elementary streams, wherein a second type additional elementary stream file has a buffer leak bit rate that is less than the buffer leak bit rate of the first type additional elementary stream file, and wherein the main multiplex stream file has a buffer leak bit rate that is greater than the buffer leak bit rate of the first type additional elementary stream file;

an initial physical location including at least one block of the second type of auxiliary elementary stream file comprising a part of at least one second type further auxiliary information signal having a specific presentation time,

a first physical location adjacent the initial physical location comprising at least one [[a]] block of the first type of [[an]] auxiliary elementary stream file comprising a part of [[a]] at least one first type further auxiliary information signal having [[a]] said specific presentation time;

a second physical location comprising a subsequent block of the corresponding first type of auxiliary elementary stream file;
and

a physical location between the first and second physical locations comprising a block of the main multiplex stream file comprising a part of the main information signal having a presentation time corresponding to the presentation time of the at least one block of the first type further auxiliary information

signal written in the first physical location, wherein further locations include:

repetitively written subsequent parts of the main multiplex stream and parts of the corresponding first type of auxiliary elementary stream file contiguously in said track, and

another physical location having a subsequent part of the second type of auxiliary elementary stream file such that the part of the main multiplex stream file stored in a location preceding the location of the subsequent part of the second type of auxiliary elementary stream file has a presentation time that lies in a presentation time interval of a preceding part of the second type of auxiliary elementary stream file stored in said track, and the part of the main multiplex stream file, stored in a location subsequent said another physical location has a presentation time that lies in the presentation time interval of the subsequent part of the second type of auxiliary elementary stream file stored in a current location of said track.

11. (new) A computing device containing information for controlling the operation of a processor in a playback device during playback in a playback device, the record carrier carrying a main multiplex stream file, comprising a main information signal of a video information signal and a first auxiliary information signal, and auxiliary elementary stream files, comprising further auxiliary information signals, in a track on the record carrier, so as to enable simultaneous presentation of the main information signal and at least one of the further auxiliary information signals, said track comprising a series of interleaved physical locations, characterized in that:

the main multiplex stream file is subdivided into a sequence of main blocks having a main block size, each block comprising a part of the main information signal having a specific presentation time;

each of the auxiliary elementary stream files is subdivided into a sequence of auxiliary blocks per type, the auxiliary blocks each having a same auxiliary block size, the auxiliary block size being greater than the main block size, each block comprising a part of a further auxiliary information signal having a specific presentation time, wherein said auxiliary elementary stream includes (i) a first type of additional elementary streams, wherein a first type additional elementary stream file has a buffer leak bit rate and (ii) a second type of additional elementary streams, wherein a second type additional elementary stream file has a buffer leak bit rate that is less than the buffer leak bit rate of the first type additional elementary stream file, and wherein the main multiplex stream file has a buffer leak bit rate that is greater than the buffer leak bit rate of the first type additional elementary stream file;

an initial physical location including at least one block of the second type of auxiliary elementary stream file comprising a part of at least one second type further auxiliary information signal having a specific presentation time,

a first physical location adjacent the initial physical location comprising at least one [[a]] block of the first type of [[an]] auxiliary elementary stream file comprising a part of [[a]] at least one first type further auxiliary information signal having [[a]] said specific presentation time;

a second physical location comprising a subsequent block of the corresponding first type of auxiliary elementary stream file;
and

a physical location between the first and second physical locations comprising a block of the main multiplex stream file comprising a part of the main information signal having a presentation time corresponding to the presentation time of the at least one block of the first type further auxiliary information

signal written in the first physical location, wherein further locations include:

repetitively written subsequent parts of the main multiplex stream and parts of the corresponding first type of auxiliary elementary stream file contiguously in said track, and

another physical location having a subsequent part of the second type of auxiliary elementary stream file such that the part of the main multiplex stream file stored in a location preceding the location of the subsequent part of the second type of auxiliary elementary stream file has a presentation time that lies in a presentation time interval of a preceding part of the second type of auxiliary elementary stream file stored in said track, and the part of the main multiplex stream file, stored in a location subsequent said another physical location has a presentation time that lies in the presentation time interval of the subsequent part of the second type of auxiliary elementary stream file stored in a current location of said track.